

Joint Commission for Environmental Cooperation and U.S./Mexico Border 2012 Collection and Storage of SLABs

December 4, 2007



RSR Corporation

- Primary Business
 - Reclamation of Lead Acid Batteries
- Responsible for secondary lead smelter operations in three states
- Primary Products
 - Lead
 - Plastic
 - Sodium Sulfate

RSR Corporation

- Spent Batteries

- Supplied from Battery Manufacturers

- Purchased from Scrap Dealers

RSR Corporation



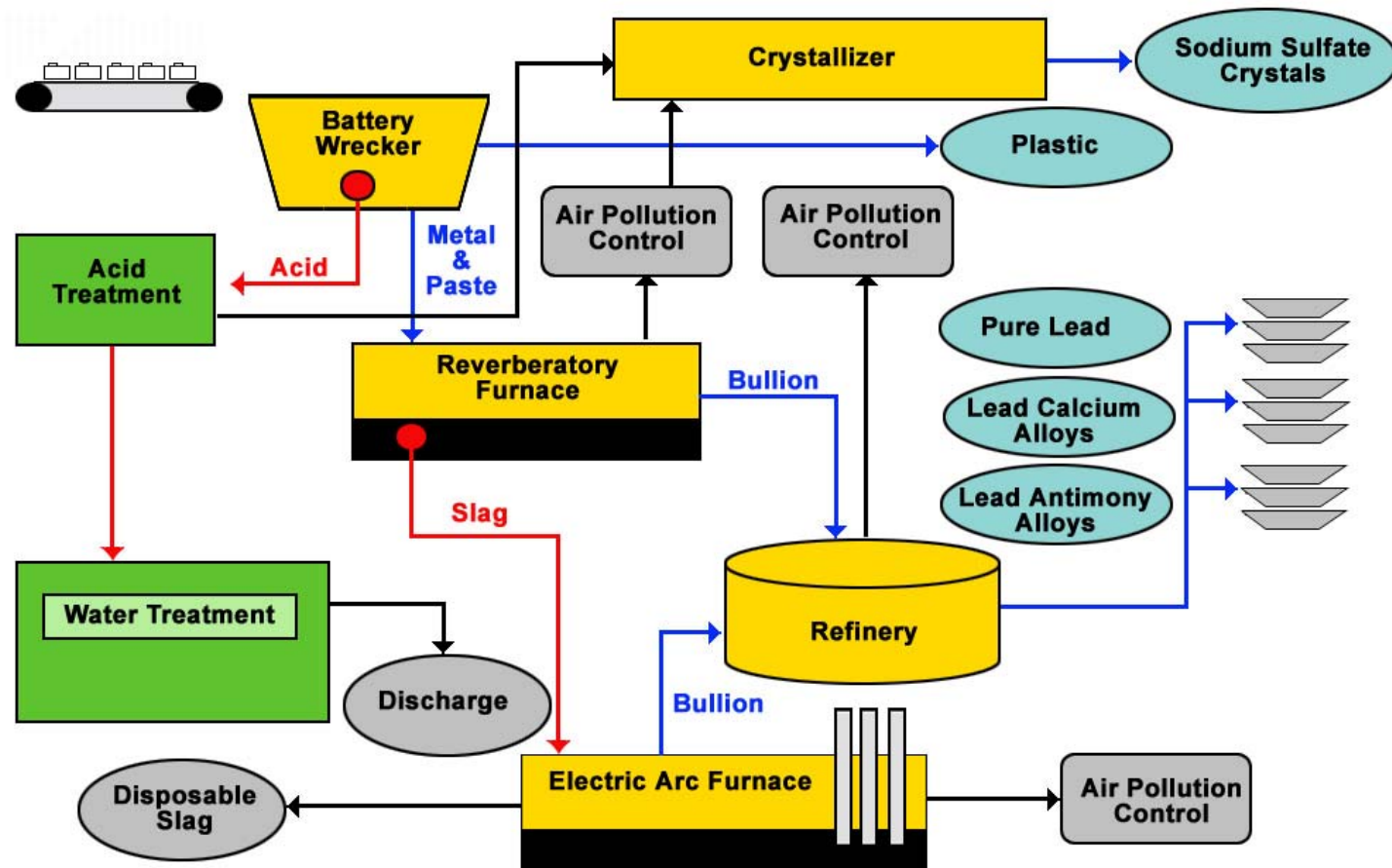
RSR Corporation



RSR Corporation



Battery Reclamation Process



U.S Regulatory Background

Responsibilities

- If you generate Spent Lead Acid Batteries (SLABs) and send those batteries for disposal, the hazardous waste rules apply for the storage, transportation and disposal of the SLABs
- If you generate, collect and/or transport SLABs for reclamation (but you do not reclaim the SLABs) you are exempt from the hazardous waste regulations;
- If you reclaim SLABs but don't store SLABs before you reclaim them, you are exempt from the hazardous waste regulations; but
- If you reclaim SLABs and store the batteries before you reclaim them you are classified as a Hazardous Waste Treatment Storage or Disposal (TSD) facility.

U.S Regulatory Background

So what does this mean?

- Secondary lead smelters are regulated by the same rules and requirements as US hazardous waste disposal operations
- RCRA Waste Permits are required;
- Operating requirements for the storage areas are in place (secondary containment, aisle space, labeling,)
- Procedures for inspecting incoming loads are required
- Procedures for unloading SLABs for storage are required;
- Procedures for addressing broken batteries and spills are required.
- Procedures for handling non-conforming waste are required
- Inspection procedures for storage of SLABs are required;
- Documented inspections of both the SLABs and the storage area are required.

U.S Regulatory Background

In addition there are...

- Rigorous oversight and inspections by Regulatory Agencies;
- Customer audits and due diligence;
- SREA

Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices

■ Incoming material basics

□ Prior to transferring received material (SLABs and containers) check for :

- Leakage
- Labeling
- Batteries that are broken, cracked, leaking, or not stacked upright
- Sampling can be and may be required

Good Management Practices

■ Unloading Batteries

- ☐ Handle batteries in a manner that prevents the spilling of battery liquid
- ☐ Clean up any spillage immediately
- ☐ Banding should be placed in the appropriate disposal container
- ☐ Contaminated pallets should be washed before reuse or disposal

Good Management Practices



Good Management Practices

■ Storage of material

- ☐ Batteries are to be palletized and stacked upright
- ☐ All containers and pallets of batteries must be stacked in a safe manner (shifting potential addressed) and there must be adequate aisle space (to accommodate inspections and emergency response)
- ☐ All containers must remain closed and labeled
- ☐ Material is to be properly labeled

Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Good Management Practices



Container Storage Area

- Not in a 100 year flood plain
- Materials of construction must be compatible with the material to be stored.
- The base must be free of cracks and gaps and sufficiently impervious to contain leaks, spills and rain
- Ability to remove liquids within a short timeframe
- Secondary containment must be capable of handling 10% of the maximum liquid capacity in storage
- Prevent or manage run-on
- Prevent containers or waste from coming in contact with standing water
- Inspections

Truck Management



Truck Management



Inspections

■ Types of Inspection

- ☐ Inspections of incoming material
- ☐ Inspections of material in storage area (weekly)
- ☐ Inspections of storage area (weekly)

Inspections



Inspections

Battery Storage Area:

■ Drums, Boxes and Containers

- ☐ Are all containers closed and capped?
- ☐ Are all containers in good condition?
(No severe dents, cracks, splits or corrosion?)
- ☐ Are all containers intact (no leaks or spills)?
- ☐ Are all containers labeled with hazardous waste labels (including accumulation dates)?

Inspections

Storage:

- Are all containers in an upright position?
- Are all containers stacked in a manner which allows adequate aisle space for inspection around and through the area?
- Are containers stacked in a manner to ensure safety and stability?

Inspections

Area:

- Is the surface free of cracks?
- Is the surface clean (free of debris)?
- Is the surface free of standing water?
- Is the surface free of spills or leaks?
- Is the surface coating intact (no signs of wear)?
- Are the warning signs posted?

Inspections

Secondary Containment System:

- Is the run-off/spill containment system intact?
(No signs of wear or cracks?)
- Is the containment system clean and clear?




Inspections

One last word on inspections

**If you are going to
document your MISTAKES ...
make sure you document your
CORRECTIVE ACTIONS**

Summary

- Battery Recycling is a success story
- Battery Recycling is the right thing to do
- In the US, the battery reclamation process at Secondary Lead Smelters is a highly regulated and controlled process to protect the environment.



“The supreme reality of our time...
is the vulnerability of our planet.”

President John F. Kennedy
speech – June 28, 1963

